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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

MBA PROFESSIONAL REPORT

Navy/Marine Corps TACAIR Integration:

Impact on Operational and Supporting Activities

By: **Gerard P. Lamoureux, Jr.,**
Juan F. Forero,
Richard C. Martin, Jr., and
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December 2003

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Jerry L. McCaffery

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This project delineates a brief history of the operational requirements of the F/A-18 and what necessitated changes within the TACAIR community. The topics covered will explain how the plan was developed based on key assumptions and challenges, the implementation of the transformational plan to date, current funding issues, an analysis with recommendations of the transformational process, and an overview of the cultural change that will inevitably come with the transformation.

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NAVY/MARINE CORPS TACAIR INTEGRATION: IMPACT ON OPERATIONAL AND SUPPORTING ACTIVITIES

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Submitted in partial fulfillment of the requirements for the degree of

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from the

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NAVY/MARINE CORPS TACAIR INTEGRATION: IMPACT ON OPERATIONAL AND SUPPORTING ACTIVITIES

Abstract

The purpose of this MBA Project was to investigate and provide a comprehensive overview regarding the current issues regarding Tactical Aircraft Integration within the Department of the Navy. This project was conducted with the sponsorship and assistance of the Comptroller, Commander Naval Air Forces Pacific. The goal of this project was to identify issues and provide an analysis of the ongoing efforts between the Navy and Marine Corps. Four criteria were set aside for deliverables: 1) Produce key documentation, most notably the Memorandum of Understanding and the Memorandum of Agreement; 2) Produce any milestones or timetables required for integration; 3) Discuss issues regarding funding and resource allocation as applied to the integration process; 4) Provide information on requirements for integrating operational and supporting activities.

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INTRODUCTION

The 2001 Defense Planning Guidance (DPG) required the Department of the Navy (DoN) to reduce its expenditures based on a reevaluation of the threats to the United States and to develop a way to integrate its entire aviation structure. The Department has chosen to cut some of its expenses by consolidating the tasks of the Strike Fighter Community within the Navy and Marine Corps by putting squadrons from both services in the other's deployment cycle. There is a definite opportunity to reduce expenditures, but it will come at a price. There is the inherent rivalry between the services and pride in the way they each approach their respective missions. The senior leadership has agreed on the concept of Tactical Aircraft integration; however, there is the challenge of getting the air wing communities to accept the imminent change.

The topics covered within this paper will explain the need for transformation, how the plan was developed, key assumptions and challenges, the implementation of the transformational plan to date, funding issues, an analysis with recommendations of the transformational process, and an overview of the cultural change that will inevitably come with the transformation. In order to accomplish the research required for this paper, the project needed a team with unique backgrounds and perspectives to thoroughly analyze and document the integration process to date. The team was comprised of a Naval Aviator with twelve years operations experience, two Marine Corps Aircraft Maintenance Officers with a combined eleven years experience, and a Marine Corps Comptroller with more than five years experience in his field.

Numerous hours were spent researching information regarding the integration process; from online sources and periodical literature, to official Department of the Navy message traffic and memorandums. As the project progressed, personal interviews and discussions with pilots and maintenance personnel from the Navy and Marine Corps revealed unique perspectives on the integration plan. Navy and Marine Corps Comptrollers at group and wing level provided insight into the issues surrounding the funding process and what impact integration may have on the established methodology for transfer and handling of funds. Further insight was gained through discussions with Marine Air Group's and Navy training squadrons' operations departments and the lack of

information they possessed regarding the integration plan. Naval Training and Administration of Reserves (TAR) flight operations personnel at squadron and wing level were contacted for information regarding the restructuring of the reserve commands and the impact of integration thus far.

Most information appeared to be held at the higher offices of the Naval aviation community, where lead members within the Marine Corps' Aviation Plans, Policies, and Programs (APP) and the office of the Commander, Naval Air Forces (CNAF) were able to provide guidance and information that enabled the project team to build a solid foundation in analyzing the integration plan. The project's research culminated in team members attending a Tactical Aircraft integration conference, led by the head of the integration process for the Marine Corps from APP which highlighted key issues that still need to be addressed. Attendees of this conference ranged from Squadron, Group, and Wing Commanders to senior enlisted personnel.

NEED FOR TRANSFORMATION

Power in the world had begun to shift in the late 1980s. The Soviet Union had disbanded and left the Eastern European countries to make fundamental changes in their governments and thus modify their alliances. The first Gulf War proved the United States was capable of waging and winning a full fledged war, integrating its air, sea, and ground combat elements. The U.S. led forces faced an Iraqi Army, war hardened by years of conflict with Iran and other neighbors. The Coalition used superior air power and then overwhelmed the enemy's ground forces using speed and precision strikes. This swift success occurred during the initial stages of the downsizing process within the United States' Department of Defense (DoD). The Gulf War had also affected the perception of power within the Arab countries. The United States found itself the sole superpower. Transformation was inevitable, for both the victors and the defeated. Was there a threat now and, if so, from whom? Was there a justification for the many multi-million dollar defense programs being funded? These were questions Congress, the military, as well as the public, were asking themselves.

The U.S. military was forced to rethink their strategy for fighting a war against an uncertain enemy. Each branch of service had to look at their strengths and reduce their expenses and expenditures yet still be capable of accomplishing their mission. The Department of the Navy (DoN) looked at the services under it, Navy and Marine Corps, and decided to reduce the redundancy in the way they executed their respective missions. Aviation was one of the key elements which had overlap between the services. Within the rotor wing community, there was no redundancy in aircraft; however, in the fixed wing community redundancy flourished with the F/A – 18 Hornet.

The F/A - 18 operationally entered the U.S. arsenal in 1983. Both the Navy and the Marines showed interest in purchasing it and intended to use it in different methods. The Navy decided to use the aircraft as an air-to-air fighter and an air-to-ground bomber. Its multi-mission capabilities would allow it to replace the A-6 as well as the F-14 on the carrier**.** The Marine Corps had a different mission in mind, close air support for the Marines on the ground.

If both services had the same aircraft, it stood to reason pilots could be trained to fly either mission, which would provide both services with more flexibility at a lower cost to the DoN. This understanding led to the development of the Navy and Marine Corps Tactical Aircraft Integration (TAI) Plan. The plan would alleviate the service specific missions and would assign Marine Corps squadrons to the Carrier Air Wing as well as forward deploying Navy squadrons with the Marine Air Wing.

The awareness of the overlap in capabilities of the services provided an opportunity for joint training. Both services realized there was room to make significant savings in the active duty as well as reserve components of their air force. One such method of savings was for the Navy and Marine Corps to reduce the number of active and reserve squadrons. By doing so, deployment issues would need to be addressed. To account for this, the Navy would assign three fighter squadrons to the Marine Corps Unit Deployment Program (UDP). In turn, the Marines would augment the Carrier Battle Groups (CBG) with a total of ten F/A-18 squadrons.[1] Currently, squadrons undergo a demanding deployment rotation. The Navy squadrons look forward to a sea rotation every 18 to 24 months. The Marines have a similar rotation with the difference of possibly including a UDP cycle. By pooling the squadrons capable of doing the same mission, the hope is to minimize the financial impact on the personnel and equipment.

Training would not have much of an impact on budget constraints based on the fact Navy and Marine Corps TACAIR pilots are trained jointly through the point where each student pilot is qualified in the F/A – 18 at the Fleet Replacement Squadron (FRS). There are three such squadrons; Marine Corps Air Station (MCAS) Miramar and Naval Air Stations (NAS) Lemoore and Oceana. Upon graduation from one of these schools, officers are designated as Pilot Qualified in Model (PQM). They then continue on to a fleet squadron, where they will be instructed in the tactics and methods of effectively employing their aircraft as part of continued training.

Given pilots already receive the same foundation for their skills, one could assume there is a good basis for the integration process. The pilot training is actually the easiest part of the entire plan. The change and acceptance of the other service's culture may be the most significant hindrance to the entire plan. This, as well as plan

development, challenges faced, and assumptions made all have a significant impact on integration within the tactical aircraft community.

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PLAN DEVELOPMENT

In 2001 the Defense Planning Guidance (DPG) Tasked the DoN to find a way to integrate its entire aviation force structure. This integration would have to seek efficiencies in the utilization of DoN resources while still being able to maintain an effective force. The DoN granted this task to the Chief of Naval Operations, Naval Warfare Requirements, and the Headquarters Marine Corps, Deputy Commandant for Aviation. The services then contracted Whitney, Bradley, & Brown, Inc. to conduct a study which would help answer the DPG tasking and to determine whether efficiencies could be translated into a reduction in aviation expenditures. This study would be focused solely on fixed wing tactical aviation (TACAIR) since it represented the most significant portion of the overall aviation budget.[2]

The study's aim was to determine how to get the maximum utility out of the DoN current fixed wing assets and the new incoming JSF. An important issue at the beginning of the study was to find out what each service's TACAIR capability requirements were. It was learned the Navy's capability was to provide sufficient strike power to the carrier battle group (CVBG). The unified combatant commander was the primary customer and the missions included all aspects of the theater war plan including strike operations. The Marine Corp's capability requirements, on the other hand, were different. Its main focus was on providing direct support to the Marine Air Ground Task Forces (MAGTF) through close air support typically given by the amphibious ready groups (ARG) via the Marine Expeditionary Unit (MEU) AV-8B Harrier. Since the missions of both services were different, as well as a separate aircraft already being utilized, it was determined that two variants of the new JSF would be needed. The Marine Corps would require a variant with Short Take off and Vertical Landing (STOVL) capability to replace the Harrier, while the Navy would require a variant with carrier-compatible (CV) capability.

The Marine Corps requirement for the STOVL variant was examined and it was evident the MAGTF heavily depends on fixed wing aviation for firepower and fighter support. Responsiveness is a key attribute of firepower only STOVL satisfies. The STOVL variant is the only way to provide fixed wing capabilities in the ARG/MEU,

especially those without support of a CVBG. The fixed aviation capable ships (LHA, LHD) do not carry catapults or arresting gear, making it impossible for non-STOVL variants to fly off these ships.

The Navy's distinct performance requirements for CV variant was also examined and justified. The data provided to the study team proved the requirement and expected performance for un-refueled range and endurance for the CV variant exceeded the requirement for the STOVL by approximately 50%. The internal payload of the CV variant exceeds the STOVL variant by 100 %. In addition, the required launch distance for the STOVL variant under a variety of conditions would have a negative effect on the operations of the non-STOVL variants on the flight deck. These differences emphasized a need for two variants of the JSF. Utilizing only one version of the JSF would result in a decrease in effectiveness for both services.

Once the requirement for the two JSF variants was briefed and accepted by both service chiefs, the new challenge was to determine the affordability of the two JSF variants. An analysis was conducted of the current APN1-4 funding for FY02. The results showed that with the current fixed wing assets, the FY02 budget would total to $6.2 billion in FY02 dollars. It was also determined, with the new JSF, the required budget would only have to be $3.2 billion in FY02 dollars. These savings would be reached by the lower maintenance dollars spent on newer aircraft and also the lower quantity of JSF aircraft needed to accomplish current missions. There would also be a reduction in overhead costs due to the elimination of aircraft not in the operating forces. This meant that by integrating the two JSF variants between the two services there would be a savings of more than $3 billion in FY02 dollars.

The study team came up with six recommendations to answer the DPG's task. These final recommendations were first presented to the CNO and the Commandant of the Marine Corps (CMC) and then briefed to the Secretary of the Navy. The study's first recommendation was to decommission three active Navy squadrons and two reserve squadrons. One of the reserve squadrons would be Navy and the other would be a Marine Corps. This would reduce the force from sixty-four squadrons to fifty-nine.

The second recommendation was to reduce the number of aircraft in F/A-18 from fourteen to twelve and the JSF squadrons form twelve to only ten. Next they recommended aircraft overhead be reduced from 95% to 62%. This reduction would be made on authorized active and reserve structure. The transformation of business practices was highly stressed in inventory, supply management, training, and test and evaluation. Their fifth recommendation was to integrate ten Marine squadrons into Navy air wings (one per air wing). Their last recommendation was to integrate three Navy squadrons into the Marine UDP rotation program.

From this report and the subsequent briefings, a Memorandum of Understanding (MOU) signed by the Commandant of the Marine Corps, the Chief of Naval Operations, and the Secretary of the Navy stated the commitment to integration (Appendix A). Furthermore, a Memorandum of Agreement (MOA) by the Deputy CNO (Warfare Requirements and Programs) and the Deputy Commandant for Aviation delineated responsibilities for the affected platform and a projected timeline for integration (Appendix B). Key issues noted in the report and the MOA stated certain assumptions provided a foundation for developing the TAI plan. These assumptions may lead to challenges that could affect the integration process.

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ASSUMPTIONS and CHALLENGES

Some key assumptions were made in the development of the plan in order to maintain the scope of the project. Transformation and change were paramount throughout these assumptions which impacted not only other communities within the aviation field, but within the services and how they did business. These assumptions included revising current inventory planning factors based on ongoing business practices and increased capabilities of future aircraft, and given these increased capabilities, there would be a maximization of combat power to forward deployed forces. From this, a direct measurement could be obtained using today's force capabilities and comparing it to the projected force structure. Even though there was a projected force structure for the aircraft, CVBGs and ARGs were to take into consideration the use of reserve units as sources of trained aircrew rather than having unit replacements. The ships of the projected force were also to mirror today's forces and each TACAIR squadron had at least 10 aircraft. Finally, the UDP cycle was to continue based on the requirement to support a Korean conflict.

While some of these assumptions are valid (e.g., how the ships mirrored today's forces and the capabilities of today's forces were to be comparable to the projected forces' capabilities), others are too fluid and have the potential to cause problems with the integration process. The most possible scenario for causing the most problems is the use of reserves as active duty aircrew. While novel in its simplicity and originality, costs associated with this assumption are the attrition of personnel within the reserve community and increased training costs of adding a reserve squadron to the training cycle. Marines and sailors do not join the reserves to be out to sea for 6-8 months with an additional 6 months of workups. Personnel coming into the reserves and transitioning from active duty to the reserves will either avoid the service all together, or choose a different career path. It's very likely that the cost of the training cycle, parts, fuel, man-hours, etc., of turning a reserve squadron into a deployable squadron would nearly negate the estimated savings of decommissioning an active duty squadron.

Other challenges begin to surface when discussing the integration of different services. While it is clear the TACAIR integration plan is theoretically an increase in the

strategic use of naval assets, the reality of the plan is it will transform the culture within the Navy and Marine Corps. These cultural changes will reach far beyond aviation because the Marines consider aviation an extension of their infantry. Given the fact every Marine is a rifleman, the infantry has confidence their air support will be there when called upon. There is skepticism as to whether the Navy will be able to provide the same level of support to the ground forces. Representative Neil Abercrombie, D-Hawaii, the ranking member of the House Armed Services Tactical Air and Land Forces Subcommittee expressed these concerns during the questioning of Lieutenant General Michael Hough at the April 2, 2002 budget hearing. Additionally there is fear within the Marine Corps that this marks the beginning of the end of Marine Corps Aviation. This belief was demonstrated in the remarks below made by Norman Polmer, a military scholar and author of a history of carrier aviation.

> It's the most ridiculous thing I've ever heard. If you integrate, what's the need for Marine air? The reason for Marine air is to support the grunts [infantry]. If you start to put them together [with the Navy], you lose the uniqueness of the Marine air.[3]

The implementation of the TAI plan is still in its early stages, but to date the DoN has created a sense of urgency and is actively lining up sponsorship. The following quote from Lt. Gen. Hough is indicative of the upper echelon's outlook on the future.

> [W]ith the looming procurement bow wave, there is no way for the Navy and Marine Corps to survive independently…[4]

The DoN is aware the success of the integration depends on lining up sponsorship and building a strong coalition. The MOU discussed earlier was only the first step in the building of this coalition. In a concentrated effort to gain the support of their stakeholders, both the Navy and Marine Corps have released articles in numerous publications since the signing of the MOU. These articles have been published in such places as to reach both the junior and retired officers of the TACAIR community, such as The Hook Magazine, which is the official magazine of the tactical aircraft community, Airforce Online Magazine, and the Marine Corps Gazette. The following are examples of such releases:

> By removing the traditional barriers between Navy and Marine Air, we will be able to surge resources into what ever mission needs help.[5]
>
> – Admiral Vern E. Clark
> Airforce Online Magazine, 2002

> My philosophy for success of Marine Aviation is a single Naval Solution using one team and one vision, which will provide a more capable force, to ensure better utilization of our precious assets.[6]
>
> – Lt. Gen. Michael A. Hough
> The Hook Magazine, 2003

These quotes are trying to gain support by showing the need to separate from the past to ensure the future.

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IMPLEMENTATION

Still considered to be in its infancy, the integration process informally began in 1997 when the four Marine Corps squadrons entered the carrier deployment cycle. With the official memorandums between services in 2001, the concept was legitimized and the aforementioned plan emerged.[7] However, a plan is worthless without the ability to carry it to fruition. This responsibility is being undertaken by the implementation team.

The Navy and Marine Corps implementation team is still in the developmental stages and will consist of three subcommittees called Cross Functional Teams (CFT) (Appendix C). The responsibilities the CFTs will be as follows; Team 1 - Doctrine and Training, Team 2 – Organizational and Personnel, Team 3 – Material and Facilities. These teams are projected to meet semiannually and will focus on their assigned areas while assessing the impact of their recommendations on other areas.[8] These teams will report to an Executive Steering Committee (ESC), who, in turn, will report to either HQMC, Aviation Plans, Programs, External Matters and Budget Branch (APP), or Commander, Naval Air Forces (N-40).

In October 2003, the two services met again to discuss the integration process. It was at this point that the task of implementing the two TacAir communities was passed from the Pentagon level to the Commander of Naval Air Forces (NAVAIR). An additional outcome of the meeting was that the members of the CFT's were identified and charged with finalizing their charters. The members were then tasked with identifying issues that might pose potential problems to the integration process and assigning personnel to research them.[9]

With regards to a timeline for the implementation plan, there has been no visible effort at this point to establish a Plan of Actions and Milestones that would allow the Executive Steering Committee to track the integration's progress. They have, however, suffered their first set back in a Congressional postponement of the decommissioning of the Reserve F/A-18 squadron, which was set to begin a series of cuts and decommissioning within the reserve force structure. Senator Zell Miller, D-Ga, has requested legislation that would "require the Secretary of the Navy to submit two reports 90 days before any reductions to Reserve assets occur. The reports would clarify the

Navy's aviation force structure plan for the next five fiscal years and explain plans for better integrating the Reserve into active-component operations."[10]

FUNDING ISSUES

The allocation of funds for DoN aviation assets begins at the Undersecretary of Defense (Comptroller). For west coast naval aviation squadrons, OSD allocates the funds to the Financial Management Branch (FMB). FMB then further apportions the funds to Commander Pacific (COMPAC) Fleet who then allocates the funds to Commander, Naval Air Forces Pacific (COMNAVAIRPAC). COMNAVAIRPAC at North Island will lastly provide funding in the form of Operating Budget to both Navy and Marine Corps Squadrons. COMNAVAIRPAC also has the responsibility to comply with the Anti-Deficiency Act (31 US Code 1517).[11] For Marine Squadrons in the West Coast the funding will initially be passed to Marine Forces Pacific (MARFORPAC) in Hawaii. MARFORPAC will then pass those funds to 3rd Marine Air Wing.

According to TAI proponents, the plan will permit a $35 billion (FY02) savings over the life of the program. This will be achieved by a 38% procurement reduction of the JSF and a 16% procurement reduction of the F-18, culminating in a total reduction of 497 aircraft or about 30%.

A very important issue that must be addressed is the effectiveness of a numerically smaller TAI force and whether it should be required to fight two regional conflicts at the same time, even with improvements in modernizations. Will it have enough aircraft to fight and win? The advocates of this integration argue that this numerically smaller than previously planned force will provide more forward deployed DoN strike fighters due to the new plan's enhanced capability of the TAI force. They also argue that another positive attribute of the plan is the improved ability to assign aircraft from one service to meet the needs of the other should there be that need. Although many arguments could be made both for and against TAI, the reality is there are many important issues both services need to work on, seeking out mutually beneficial solutions to any obstacles faced.

Another vital issue that cannot be ignored is whether the integration will be cost effective. Will the cost impact be worth the resulting change in the entire DoN Strike fighter capability? Although the DoN estimates that the plan will reduce the Strike Fighter procurement cost by about $35 Billion, it cannot be ignored that the plan will also

create additional Operation and Maintenance (O&M) dollar spending. Annual military aircraft Operation and Maintenance costs have been growing in recent years, mainly due to older aircraft. However, new models of aircraft have proven to be more expensive to operate and maintain than originally planned. When additional Marine Corps Squadrons integrate into Navy Carriers they will incur additional costs, which they will not be able to pay for with their pre-integration operating budget. The main question will be how will the DoN address this funding gap? Both Navy and Marine Corps squadrons will most likely spend out their normal operating budget and wait for additional funding through a supplemental later in the year. Historically the Marine Corps has not received major monetary cuts from the DoN. This however might change when the DoN begins to find ways to fund its JSF procurement plan. When this happens, Marine Corps aviation will have to take its share of funding cuts along with other Naval aviation units.

ANALYSIS and RECOMMENDATIONS

In conducting an analysis of the recommended plan and the integration process as a whole, the "10 Commandments", or criteria, for implementing change will help to establish whether the integration process is on the right track.[12] Reinforcing these criteria will be a modified version of Nadler and Tushman's Congruence Model to help understand the capabilities of the organization (Appendix D) and a measurement of the resistance to change.[13] While not every aspect of this model is identified within the "commandment" framework, the essential elements within input, transformation, and output are identified. It should also be noted some of the framework criteria may explain more than one part of the organizational model. A final analysis is given based on the implementation of two changes within a concurrent timeframe.

1. Analyze the Organization and Its Need for Change.

As stated earlier, the Defense Planning Guidance 2001 established the requirement for transformation throughout the Department of Defense. Along these lines, the Department of the Navy sought to eliminate redundancy within its two branches. Fiscal constraints helped to drive the need for change given the expense of procuring both a new fighter aircraft along with legacy aircraft.

2. Create a Shared Vision and Common Direction.

The shared vision and common direction is found within the MOA. In sum, it states the integration process will enable the DoN flexibility to provide "dominant and decisive offensive power" from nearly any location.[14] This point is further emphasized in the articulation by senior flag officers describing the integration process:

> [The] naval services can have a significantly more capable force with fewer aircraft because of the great increase in combat capability of the current and next generation of tactical aircraft when armed with precision munitions.[15]
>
> – Vice Adm. Michael G. Mullen
> Airforce Online Magazine, 2002

> TACAIR integration allows us to better meet our 21st century requirements while simultaneously increasing efficiencies, unifying our core naval aviation competencies, and maintaining our unique Marine expeditionary culture.[16]
>
> – Lt. Gen. Michael A. Hough
> Marine Corps Gazette, 2002

As part of the inputs for understanding the capabilities of the organization, this aspect is especially important in signifying change is coming.

3. Separate from the Past.

With the fall of the Soviet Union, the Cold War ended. However, the manning, organization, and equipment utilized by the United States after the end of the Cold War remained the same. The Secretary of Defense has taken on the task of redesigning the Cold War force into something more expeditious and efficient. The need to conduct operations effectively and efficiently was exemplified by the manner in which the United States conducted the first Iraqi conflict in the early 1990's, and has become even more apparent during current operations in Afghanistan and Iraq. Numerous lessons were learned as a result of these conflicts, paramount being the need for joint operations and a detachment from the half-century train of thought dictating large scale operations. Smart weapons, surgical strikes, and a highly mobile force have demonstrated a capability to scale down forces and maintain a well-trained, well-equipped, lethal fighting force.

4. Create a Sense of Urgency.

The Deputy Commandant for Aviation has stated that with the current Program of Record and procurement issues looming within the near future, there is "no way [the Navy and Marine Corps] can survive independently." With the fate of Naval Aviation resting on the outcome of transformation, the sense of urgency is paramount.

5. Support a Strong Leader Role.

Currently it is difficult to determine if there is a single lead in the TAI plan. It can be said, however, certain de facto leaders are raising awareness and are pushing the integration process. A key example would be Lt. Gen. Hough in his push to get the message out in specific publications having a very definite demographic perspective

(Marine aviators, retired Marines, active duty personnel within the naval service). In recent months, change teams have begun to form and take the lead in implementing the TAI plan.

The second input criterion in the model (Leadership) ensures commitment to change is supported from the top down. During the TACAIR Integration conference held in October, 2003, the need for leadership among the Cross Functional Teams was addressed with senior Navy Commanders and Captains and Marine Corps Lieutenant Colonels and Colonels taking charge of specific issues and seeking out CFT personnel to help address and provide possible solutions. Seeking out these assignments as collateral to regular duties, these senior officers are essential in adding economies of scale to the change endeavor, representing the major commands having a stake in the integration process. Without such strong leadership present, there would be little to no follow up and no reason to ensure change is brought about.

6. Line Up Political Sponsorship.

Proponents of change are legion. From the President of the United States and Secretary of Defense down to the junior military officer, there echoes the need to transform the fighting forces. Few would argue change is not necessary given the current world climate, particularly since the attacks which occurred on September 11th, 2001. Yet there is an undertone that permeates throughout the ranks when discussing the integration plan. The MOU and MOA both emphasize the commitment to change for the betterment of the DoN. The Deputy Commandant for Aviation has sought out the press to spread the word, but, unfortunately, it has not been enough to bring to light the necessity for integration. Misconceptions abound concerning the TAI plan. Norman Polmer's previous citation and the statements made by naval aviators are excellent examples of the misunderstanding surrounding TAI.[17] Buy in among target groups and individuals (retired pilots, scholars, former aviators within Congress) will enhance the message and provide substantial backing for continuing the integration process to the whole naval aviation community.

This is the critical task essential in implementing the strategy of the organization. Potential cost savings and the avoidance of an aircraft procurement bow wave help

provide a stimulus for political sponsorship, as well as enhancing a sense of urgency within Congressional budget authorization and appropriations committees. The perceived savings could be redistributed to other Defense programs. Conversely, opponents to increased Defense spending will see the savings as a potential increase for their programs, whether it be cutting taxes or increasing spending on education. Without political sponsorship, the organizations efforts will be severely limited and change may not take place. The other part of the model this fills is within the informal organization. Retired personnel, scholars, Congressional personnel, and other major stakeholders have a loud voice throughout the transformation process. With this power behind the leaders, change will not occur.

7. Craft an Implementation Plan.

The implementation plan was first drafted with the MOA and further expounded to include plans of action and milestones (POA&M) and responsibilities for each affected community. On paper, there is the potential for success; however, rarely does a plan survive first contact with reality. In this case, there appears to be a smooth and methodical pace by which the two services are conducting the integration process. Enough time has been factored into the process to allow for deployment cycles to continue, maintenance issues to be dealt with, but most importantly, enough time has been given in order to allow for the incorporation and transition to the JSF. In a culture of "hurry up and wait", this is a noteworthy outcome.

The second critical task in the organizational model, the implementation plan will provide a good measure of whether the transformation is a success or failure. While models exist which may parallel the current process, this aspect can only be measured as a success or failure in hindsight or when the process is stalled.

8. Develop Enabling Structures.

Two enabling structures were developed to further the TAI plan. The first was the integration of the four Marine Corps squadrons in 1997. The success of this pilot program has increased the chances for success in the ongoing integration process. The second enabling structure is in the creation of the Cross Functional Team's Executive Steering Committee which will monitor information flow within each

Cross Function Team, and will promote and stimulate information throughput between them to cover the overarching issues that may require two or more teams to address. While each CFT is its own entity, communication between teams will be essential in ensuring success.

This aspect could be equated to the strategy envisioned in the model. The final aspect of input in analyzing the capabilities of the organization, it is not the least. It is the primary focal point of initiating the change as envisioned by the leaders.

9. Communicate, Involve People, and Be Honest.

While honesty is rarely a problem with signed memorandums, the largest problem with this item is the communication. Those who will be most affected by the integration process (crewmembers) are unaware as to the reasoning for integration. Operators within the community feel the process is maintenance driven based on the aging legacy airframe. They are unaware as to the reasons delineated in MOU and MOA. Without this knowledge, resistance to change will flourish.[18]

10. Reinforce and Institutionalize the Change.

Although the integration process is still in its infancy, Navy and Marine Corps senior officers are committed to making this work. Comments by the Marine Corps Deputy Commandant for Aviation and the Chief of Naval Operations show integration is essential for the survival of naval aviation and, by signing the MOU and MOA, have expressed their commitment to ensuring it happens.

As the output, or performance aspect, of the organizational model (Appendix D), this criteria measures the success or failure of the transformation, whether in hindsight or throughout implementation.

Culture as it relates to transformation is one of the leading contributors or detractors in the TAI plan. As it is spread throughout the framework as previously analyzed, a separate section will address the issues and problems with cultural change on the informal organization.

The resistance to change method analyzes the current state of the plan with the formula DxVxFS>R, where D is the dissatisfaction with the current state, V is the clear

and understood vision, FS is the first steps toward vision, and R is the resistance to change. Resistance is further broken down into fear and distrust at the individual level, poor communication and collaboration at the organizational level, and how the environment is influencing the change.

In terms of the TAI plan, there is a high level of dissatisfaction (D) with the current state of affairs based on costs of future procurement and the need to transform the military. This dissatisfaction is such that senior officials have recognized that without action, a backlash will occur, particularly with the procurement and implementation of the JSF that will increase costs and decrease efficiency. The vision (V) aspect is moderate for two reasons. While the vision is clear in its presentation based on the joint vision delineated in the MOA and MOU, the reason this is not given a higher rating is it is difficult to find anyone who knows what the vision entails. One solution to decrease this problem is the initial articulation through the FRS and periodic updates to the fleet operators. If this is achieved successfully, the vision aspect will increase, providing a higher chance of success. The first steps (FS) are given a high value based on the initial four Marine squadrons being integrated, as well as the creation of the CFT. This is also rated high based on the speed at which the process is flowing. It is not going so fast as there is a fight, but it is calculated and progressive. In terms of resistance, this would currently be given a high rating. Fear and distrust is high at the individual level with a misunderstanding that this change signifies the end of Marine TACAIR and communication has not been open both at the individual and organizational level. Environments influence is low with little resistance in the incorporation of the JSF and subsequent decommissioning of the legacy aircraft.

Both services need to be aware of the drawbacks which may occur during the period when the JSF is introduced to the fleet inventories (Appendix E). The bottom S-curve represents TACAIR integration with the F/A-18 aircraft. Overlapping is the top S-curve, representing the JSF transition. There is inevitably going to be a period of learning how to effectively implement the aircraft as well as how to phase out the legacy aircraft in order to avoid creating a gap in support to the fleet units. When the new aircraft arrives in the fleet, TAI cycles will have been implemented for at least four years.

This is definitely not enough time to have worked out all the bugs of the change; however, the major headaches should be out of the way. The focus of TAI can then switch to only dealing with the new aircraft and not worrying about acceptance of a new way of conducting business. The biggest challenge throughout this timeframe will continue to be the cultural issues touched on earlier.

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CULTURAL CHANGE

Two points are key elements to understanding cultural change and its impact on the TAI plan. The first is the sociological impact of assimilation and the subsequent issues in understanding the merging of two cultures. The second key element is the role of assimilation as it pertains to historical identity and participational identity.

Perhaps the most important concept related to change is assimilation. Assimilation can be defined as a convergence between two different populations, so, at the extreme, the distinction between them disappears. The definition is typically used to describe ethnically diverse populations, yet it can be used whenever there are two distinct, and possibly divergent, cultures. While the definition provides an extreme example yielding a complete loss of identity, it may be closer to reality than anticipated. Perhaps the best quote presented thus far was by Polmer when he said if "you integrate, you lose the uniqueness of the Marine air". Representative Abercrombie's skepticism as to whether the Navy will be able to provide the same level of support to the ground forces based on the Marine's culture of "every Marine a rifleman" further lends credence to the issue regarding integration of TACAIR, but more importantly, cultural integration.

A main factor described in noted sociologist Milton Gordon's research on the theory of assimilation[19] can help to explain why the cultural change between the two branches of the military is of such a concern. This factor is known as identificational assimilation. Two kinds of identificational assimilation can be used for describing the cultural changes surrounding the TAI plan: "historical identity" and "participational identity." Historical identity is the identity of the culture based on the length of time a culture has existed. In the case of the Navy and the Marine Corps, the culture goes back well over 200 years. The participational identity as it relates to the naval service can be explained given the tactical missions and common ground both branches share. Examples of both can be shown given the expeditionary and amphibious nature of the Marines explaining the former and the common basic aviation schools for pilots and maintainers explaining the latter.

As noted earlier, the cultures of the United States Navy and Marine Corps are deeply rooted in tradition, customs, and courtesies going back hundreds of years. This

historical identification will actually play a positive role in integration process and the resultant cultural change. There has always been a perceived delineation between the Navy and Marine Corps, despite both branches belonging to the Department of the Navy. Perception of the TAI plan has been that it signifies the beginning of the end of Marine aviation, but there is more at stake than just the fate of Marine aviation. Marines continually hear about how a congressperson, journalist, or public servant questions the need for the Marine Corps. Whether true or not, these stories have perpetuated among the ranks for generations, but the Marine Corps has remained intact.

Further identification is rooted in the lore of the Marine Corps. Historical reference is used to explain not only an evolution in tactics and customs; it is used to explain items such as the blood red stripe on the dress uniform for non-commissioned and commissioned officers and the officer's sword. It is stories such as this that will ensure the historical identity of the Marine Corps is differentiated from the Navy.

The largest obstacle the TAI plan must overcome deals with participational identification. As stated earlier, there is common ground between the Navy and Marine Corps, particularly as it relates to the aviation community. Marines and sailors are trained at the same schools within the aviation community, both officer and enlisted, pilots and maintainers. However, once the Marines and sailors reach their respective fleet units, differentiation in mission (long range strike vs. CAS), doctrine (deep strike capability vs. expeditionary maneuver), and primary customer (Combatant Commander vs. MAGTF Commander) is readily apparent. To overcome the problems with participational identification, the Navy and Marine Corps are developing a new framework with which to operate. Called Expeditionary Strike Force, the core concepts are to exploit complementary capabilities of carrier strike and expeditionary strike groups, merge power projection capabilities of both branches, and maximize the flow of combat power ashore.

CONCLUSION

Based on the change in world events and the transition from legacy aircraft to the Joint Strike Fighter, the Department of the Navy needed to initiate a change that would enable it to continue in a more efficient and effective manner. The Defense Planning Guidance of 2001 provided the impetus needed for the Department of the Navy to develop a plan which would allow it to succeed in changing while diminishing the costs typically associated with such large organizational change. The result was a report generated by Whitney, Bradley, & Brown, Inc., that made some key assumptions following broad operational requirements, while other assumptions were made based on ideal scenarios. Assumptions such as the capabilities of today's forces were to be comparable to the projected forces' capabilities were conservative in nature, while the more ideal assumptions, such as the decommissioning of reserve squadrons and using the reserve aircrew as part of the active component, have already hit a setback with Congressional challenges based on restructuring the reserve component. Resistance to change may have irreparable consequences, particularly without buy-in from Congress and their constituents. These challenges must be overcome and met by strong leadership to prevent undermining the transformational process. Such leadership can be found through the introduction of the Cross Functional Teams early in the integration plan and other proponents of change including Lieutenant General Hough. Funding issues have arisen within the scope of TACAIR integration based not only on the current methods of allocation of funds, but also within the realm of overall cost effectiveness in the long run. Operations and maintenance costs continue to increase, not only in older aircraft, but in aircraft with increasingly more complex components and systems.

Further analysis has shown that another inhibitor to change within the Tactical Aircraft Integration plan is the number of changes occurring within a short time frame (integration and incorporation of the JSF) and the effect of these changes on the culture of both services. To mitigate the impact on culture and the potential backlash, continued and improved communication among a critical mass of participants and strong leadership will stimulate a successful change. Currently, the plan is supported by strong leadership, but the integration message is not circulating as it should in the Navy and Marine Corps.

Various documents mention the plan as a part of other aviation related changes and scenarios without going into the depth required to document a large scale change. This could ultimately cost the Navy and Marine Corps time and money for crisis management. By enhancing the amount of information to participants within the entire Naval and Marine Corps aviation community, chances for success would increase exponentially. We recommend such action.

ENDNOTES

[1] Unclassified DoN Message P 110030Z Jan 03
[2] Whitney, Bradley, & Brown, Inc., "Navy-Marine Corps Aviation Integration Final Report", May 2002.
[3] Otto Kreisher, "Air Wings Built for Two", Airforce Online Magazine, http://www.afa.org/magazine/Dec2002/1202wings.asp, December 2002.
[4] Ibid.
[5] Ibid.
[6] Michael Hough (LtGen, USMC), "Marine Corps Aviation for the Future", The Hook Magazine Online, http://www.tailhook.org/BrfSp03.htm, Spring 2003.
[7] It is speculated that the time lag between the first squadron deploying in 1997 and the respective services senior officers signing the memorandums in 2001 was to allow for a test and evaluation on the integration process on a micro-scale. There is no documentation to date confirming this as a valid point.
[8] TACAIR Integration Team Charter Draft dtd September 10, 2002.
[9] The official list of potential problems and team members will not be finalized and released until late 2003.
[10] **"**Proposed Cuts To Reserve Aviation Face Opposition", Navy Times, July 07, 2003.
[11] Under the Anti-Deficiency Act, if you obligate or expend more than the amount in the appropriation or fund or the amount apportioned or any other subdivision of funds, you may be subject to appropriate administrative discipline, including—when circumstances warrant—a written reprimand, suspension from duty without pay, or removal from office. It should be noted that Navy and Marine Corps units who receive funds from COMNAVAIRPAC do not have 1517 authority.
[12] Todd Jick, and Maury Peiperl, Managing Change: Cases and Concepts (New York: McGraw-Hill) 2003
[13]David A. Nadler and Michael L. Tushman, "A model for diagnosing organizational behavior: Applying the congruence perspective", Organizational Dynamics, Autumn 1980, no. 2:35–51
[14] Memorandum of Agreement 16 Aug 2002, Ser N780/2U651265 and Ser APP/32002001
[15] Kreisher, 2002.
[16] William L. Nyland, "State of Marine Aviation", Marine Corps Gazette, May 2002, Vol. 86, Issue 5, pg. 19, 6.
[17] Interviews with two crewmembers (one Navy, one Marine Corps), both O-4, have shown that the community is being briefed and/or making assumptions based on maintenance issues with the F/A-18. For the Navy, the issue of barrel fatigue from carrier landing is cited as the need for integration. For the Marines, the concerns stem from air to air missions resulting in higher stresses on the airframe. Concern among aviators is "Why integrate when it is easier to just swap aircraft until the JSF is implemented?"
[18] Ibid.
[19] Milton Gordon, Assimilation in American Life, (New York: Oxford University Press) 1964

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Gordon, Milton, Assimilation in American Life, (New York: Oxford University Press) 1964

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Kreisher, Otto, "Air Wings Built for Two", Airforce Online Magazine, December 2002

Nadler, David A. and Michael L. Tushman, "A Model for Diagnosing Organizational Behavior," Organizational Dynamics, Autumn 1980

Nyland, William L., "State of Marine Aviation", Marine Corps Gazette, May 2002

Whitney, Bradley, & Brown, Inc., Navy-Marine Corps Aviation Integration Final Report, May 2002

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THE SECRETARY OF THE NAVY
WASHINGTON, D.C. 20350-1000

Commandant of the Marine Corps
Chief of Naval Operations

CNO	CMC	SECNAV
13100	13100	13100

MEMORANDUM OF UNDERSTANDING
BETWEEN
SECRETARY OF THE NAVY
AND
COMMANDANT OF THE MARINE CORPS
AND
CHIEF OF NAVAL OPERATIONS

Subj: NAVY/MARINE CORPS TAC AIR INTEGRATION

1. In an effort to achieve greater combat capability with regard to naval tactical aviation, and with a shared commitment to using the resources provided to the Department of the Navy as judiciously as possible, we the undersigned have agreed to begin the process of achieving integration of naval tactical aviation.

2. A study conducted by Whitney, Bradley and Brown during the period September 2001 to March 2002 indicates conclusively that increased combat capability and significantly better utilization of resources are achievable over a long period of time with the advent of the Joint Strike Fighter variants (CV and STOVL). We are pledged to conduct a full and impartial evaluation of both variants of the Joint Strike Fighter.

3. We recognize the challenge and the difficulty of the task ahead of us. We are pledged to change both Navy and Marine Corps "culture" in order to derive the maximum benefit possible from integration. We will integrate our aviation staffs at the flag and general officer level and below. Future programs, POM submissions, and communications with the Department of Defense, the media, and the Congress will be developed with the interests of both the Navy and the Marine Corps in mind. We will no longer develop "service positions" with regard to naval tactical aviation independently of one another. Lastly, we will commit to utilizing the Navy/Marine Corps Big 10 forum to regularly advance the concepts, ideas, and policies which will lead us to the integration we seek to achieve.

Subj: NAVY/MARINE CORPS TAC AIR INTEGRATION

4. It shall be one of the principal underpinnings of our efforts to achieve a naval capability for the 21st Century which celebrates the fusion of network centric warfare with expeditionary maneuver warfare. In this manner, naval forces from the sea base will provide the nation with a uniquely powerful capability to affect the positive outcome of our nation's battles at sea, in the air, and on land.

5. This document is the foundation of our effort. Others that follow are intended to capture the milestones of our progress towards our stated goals.

JAMES L. JONES V. E. CLARK Gordon R. England

DEPARTMENT OF THE NAVY
DEPUTY CHIEF OF NAVAL OPERATIONS
(WARFARE REQUIREMENTS AND PROGRAMS), 20350-2000
DEPUTY COMMANDANT FOR AVIATION,
UNITED STATES MARINE CORPS, 20380-1775
WASHINGTON, D.C.

CNO
13100
Ser N780C/2U651265
20 AUG 2002

CMC
13100
Ser APP/320020O1
16 AUG 2002

MEMORANDUM OF AGREEMENT
BETWEEN
DEPUTY CHIEF OF NAVAL OPERATIONS
(WARFARE REQUIREMENTS AND PROGRAMS)
AND
DEPUTY COMMANDANT FOR AVIATION, UNITED STATES MARINE CORPS

Subj: DEPARTMENT OF THE NAVY TACTICAL AIRCRAFT INTEGRATION

Ref: (a) Navy/Marine Corps TacAir Integration Memorandum of Understanding dtd 14 August 2002
(b) Defense Planning Guidance for FY 2003-2007 dtd 30 August 2001
(c) USN/USMC Memorandum of Agreement dtd 14 Feb 1997

Encl: (1) Integration Timeline

1. **Scope.** This Memorandum of Agreement (MOA) serves as an instrument for implementing reference (a) and the results of a comprehensive review to assess the feasibility of integrating all of Naval Aviation force structure per reference (b). As a result of this review, the Navy and the Marine Corps will integrate Tactical Aircraft (TacAir) forces to provide Combatant Commanders and joint forces with flexible, responsive, interoperable and expeditionary forces to support deployed and surge operations.

2. **Previous DoN TacAir MOA.** This MOA supercedes the current TacAir integration MOA (reference (c)) between the Navy and the Marine Corps.

3. **DoN TACAIR Integration Vision.** Our vision merges Navy and Marine Corps TacAir into a seamless Naval Aviation force at sea and ashore. Naval Aviation force projection will be accomplished by the increased integration of Marine Corps TacAir squadrons into Carrier Air Wings and the integration of Navy squadrons into Marine Aircraft Wings. The goal is to exploit revolutionary Network Centric Warfare and Expeditionary Maneuver Warfare concepts to enhance power projection by tightly integrating Carrier Strike Groups, Expeditionary Strike Groups, and Marine Air-Ground Task Forces (MAGTFs). The successful integration of Naval Aviation provides the framework for the Navy and Marine Corps to further enhance core combat capabilities to provide a more potent, cohesive fighting force that is affordable. The strengths of both Services have enabled our ability to project and sustain power ashore from sovereign flight

decks and austere expeditionary bases with forward-deployed forces. TacAir integration provides the DoN with the flexibility to employ sea-based squadrons and move those squadrons ashore when required, and surge both Navy and Marine Corps non-deployed squadrons to project dominant and decisive offensive power from the sea or ashore in support of Combatant Commanders and joint force objectives.

4. **Active TacAir Force Structure**

a. This agreement establishes the requirement for the Marine Corps to integrate four additional F/A-18 squadrons into the Carrier Air Wing rotation prior to 2008. Concurrently, the Navy will integrate 3 F/A-18 squadrons into Marine Aircraft Wings to support the Marine Unit Deployment Program (UDP) rotation, and decommission one F/A-18 squadron. Integration will commence in 2003.

b. Two additional Marine Corps F/A-18 squadrons will be integrated into Carrier Air Wings in conjunction with two Navy F/A-18 squadron decommissions at dates to be determined in the PR05 budget cycle.

c. In 2004, Navy F/A-18 squadron Primary Aircraft Authorized (PAA) will be reduced from 12 to 10 aircraft for all Carrier Air Wing squadrons except those identified to transition to F/A-18E/F and support Marine Corps UDP (exceptions remain at 12 PAA).

d. Marine Corps F/A-18 squadron PAA will be reduced from 12 to 10 aircraft as each squadron is integrated into the Carrier Air Wing. The four F/A-18 squadrons already integrated into its respective Carrier Air Wing will reduce PAA to 10 aircraft in 2004. Marine Corps UDP squadrons will remain at 12 aircraft. AV-8B PAA will remain at 16 aircraft. AV-8B PAA requirement will be reviewed as part of the PR05 budget cycle.

5. **Reserve TacAir Force Structure**

a. One Navy and one Marine Corps F/A-18 Reserve squadron will be decommissioned in 2004. In 2006, PAA for the remaining two Navy and three Marine Corps squadrons will be reduced from 12 to 10 PAA.

b. One USMCR F/A-18 squadron is provided for integration into the USN Reserve Air Wing (CVWR). Units of the Reserve Air Wing will support Marine exercises in concert with CNO prescribed readiness levels and fleet contributory support obligations. USMCR squadrons will continue to support MAGTF contingency and training requirements in concert with CMC prescribed readiness levels. The CVWR integrated USMCR squadron will effect change of operational control (CHOP) to the Reserve Air Wing during annual training. Otherwise, the CVWR integrated USMCR squadron will remain ADCON/OPCON to the USMCR.

6. **OPCON.** The DoN will satisfy both Navy and Marine Corps commitments with Navy or Marine Corps squadrons. The DoN will out-CHOP integrated squadrons, if needed, to meet those requirements. CHOP for Navy squadrons satisfying Marine Corps commitments and Marine Corps squadrons satisfying Navy commitments will generally occur six to nine months

prior to deployment and continue until one month after deployment. Actual dates will be established via Letter of Instruction between the respective TYCOM/MARFOR.

7. **Training.** Navy and Marine Corps squadrons will be available for all required Carrier Air Wing and MAGTF training. TYCOMs/MARFORs are responsible for developing schedules and supporting training requirements.

8. **Funding**

a. Funding for scheduled deployments and training will be programmed within the POM by the respective Service and allocated by the TYCOM/MARFOR for distribution to perform the mission.

b. Readiness, aircraft modifications, depot and spares funding will be adjusted to facilitate the execution of the Integration Operational Concept and mitigate the risk of a smaller strike fighter force. The Flying Hour Program will be funded to level T2.2 readiness for USN squadrons and to Marine Aviation Campaign Plan (MACP) levels for USMC squadrons. This will enable both Services to surge/rapidly deploy and employ DoN non-deployed strike fighter assets in support of contingency and wartime requirements.

9. **PERSTEMPO/OPTEMPO.** Service Chiefs' PERSTEMPO policies will be used to establish a common PERSTEMPO/OPTEMPO for both Navy and Marine Corps squadrons. For scheduling purposes, a nominal deployment length of six months and a minimum turnaround ratio of 2:1 (12 months) will be used. Flexibility to exchange squadrons in the Carrier Air Wing or Marine Aircraft Wing rotation is left to the discretion of the TYCOM/MARFOR for purposes of PERSTEMPO/OPTEMPO relief.

10. **Manpower & Personnel.** Squadron billet structures between the Navy and Marine Corps differ. End strength and manpower funding (MPN) will be adjusted between the Services to support the Integration Operational Concept. In the interim, USN agrees to provide maintenance and support personnel, as needed, to each Marine Corps F/A-18 squadron that is integrated into the Carrier Air Wing. The additional manning requirements for maintenance and support personnel for each integrating squadron will be determined by the TacAir Integration Team no later than one year prior to deployment. Additionally, the TacAir Integration Team, in conjunction with the Navy Bureau of Personnel and Marine Corps Manpower and Reserve Affairs, will recommend the appropriate level of officer exchanges (CVW and MAG staffs), to include command opportunities, by 1 March 2003.

11. **Action**

a. The Navy and Marine Corps agree to form an TacAir Integration Team that is chartered to review all aspects and issues of the integration plan and conduct detailed execution planning per enclosure (1) that includes, but is not limited to, manpower, funding, scheduling, operational commitments, training and aircraft inventory management. The TacAir Integration Team will include all stakeholders and be co-chaired by Commander, Naval Air Force U.S. Pacific Fleet, Commander, Naval Air Force U.S. Atlantic Fleet, Commander, Marine Forces Pacific and Commander, Marine Forces Atlantic. The TacAir Integration Team will provide a

semi-annual report that includes recommendations to the Commandant of the Marine Corps and the Chief of Naval Operations.

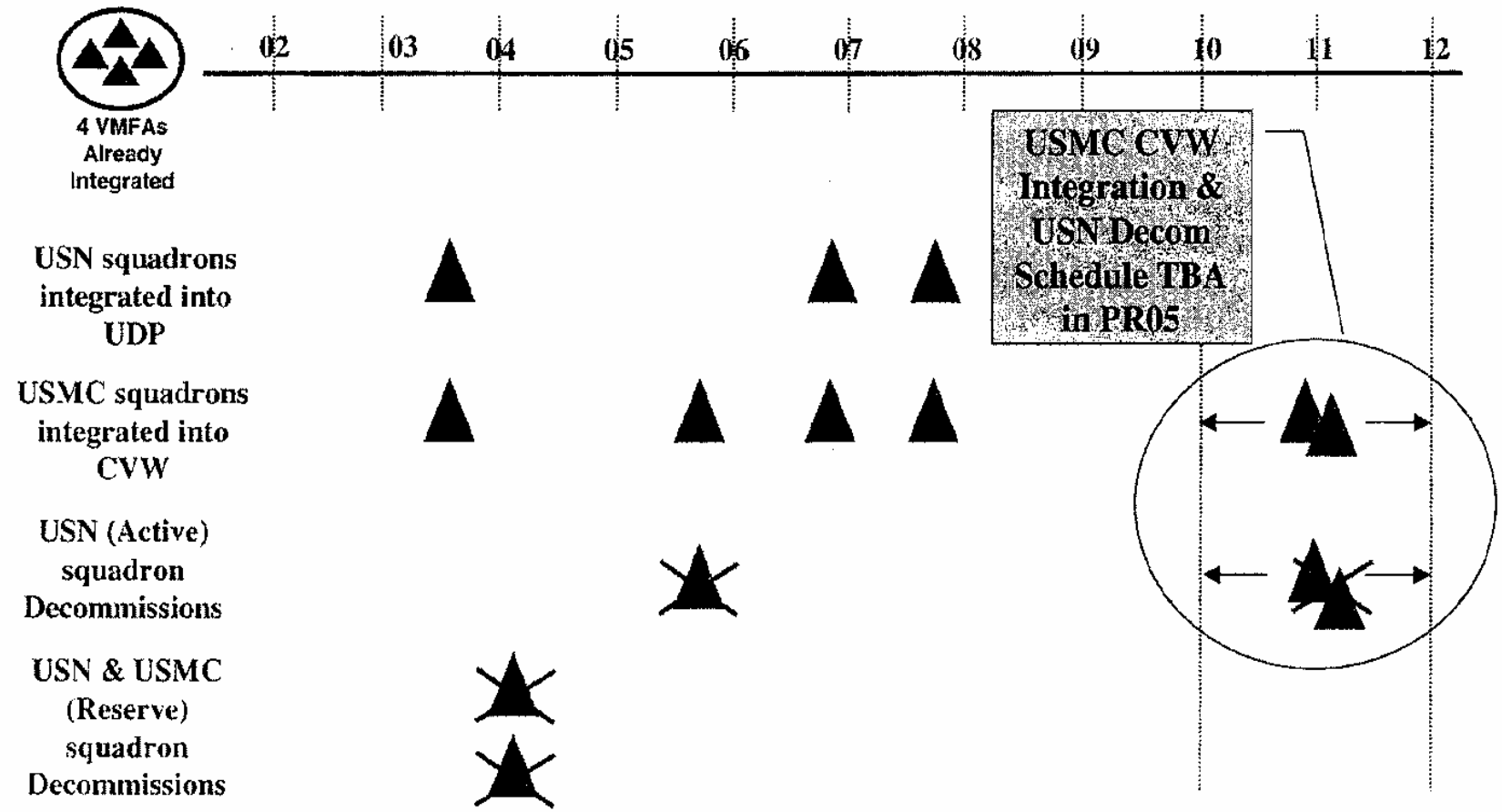
b. This MOA will be reviewed annually by the Deputy Chief of Naval Operations (Warfare Requirements and Programs), and the Deputy Commandant for Aviation, United States Marine Corps. The primary purpose of the review will be to approve a three-year schedule for TacAir squadrons in support of Navy and Marine Corps commitments. The three-year schedule will be approved by the Deputy Chief of Naval Operations (Operations) and the Deputy Commandant for Plans, Policies, and Operations, United States Marine Corps and published via Naval Message.

c. The Deputy Chief of Naval Operations (Warfare Requirements and Programs), and the Deputy Commandant for Aviation, United States Marine Corps are responsible for the execution of this agreement.

W. L. NYLAND
Lieutenant General, U.S. Marine Corps

D. V. MCGINN
Vice Admiral, U.S. Navy

Integration Schedule



Enclosure (1)

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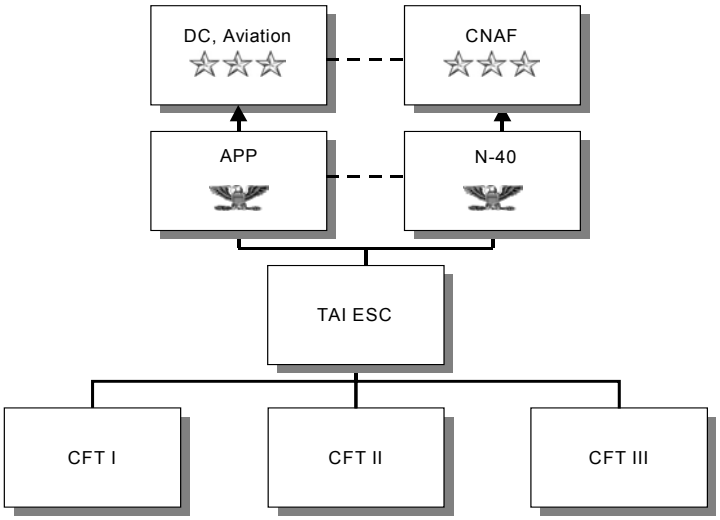
TACAIR INTEGRATION TEAM

- The Tactical Aircraft Integration Team (TAIT) is established under the authority of DC, Aviation and DCNO (N6/N7).
- Commander, Naval Air Forces is the Navy's lead agency for TAI.
- HQMC, Aviation Plans, Programs, External Matters and Budget Branch (APP), and Commander, Naval Air Forces (N-40) will jointly administer the TAIT.
- The TAIT ESC will act in an advisory role and be kept abreast of the developments and progress of the TAIT.
- The TAIT may form subgroups, in addition to the CFTs, to examine specific short-term issues as necessary.



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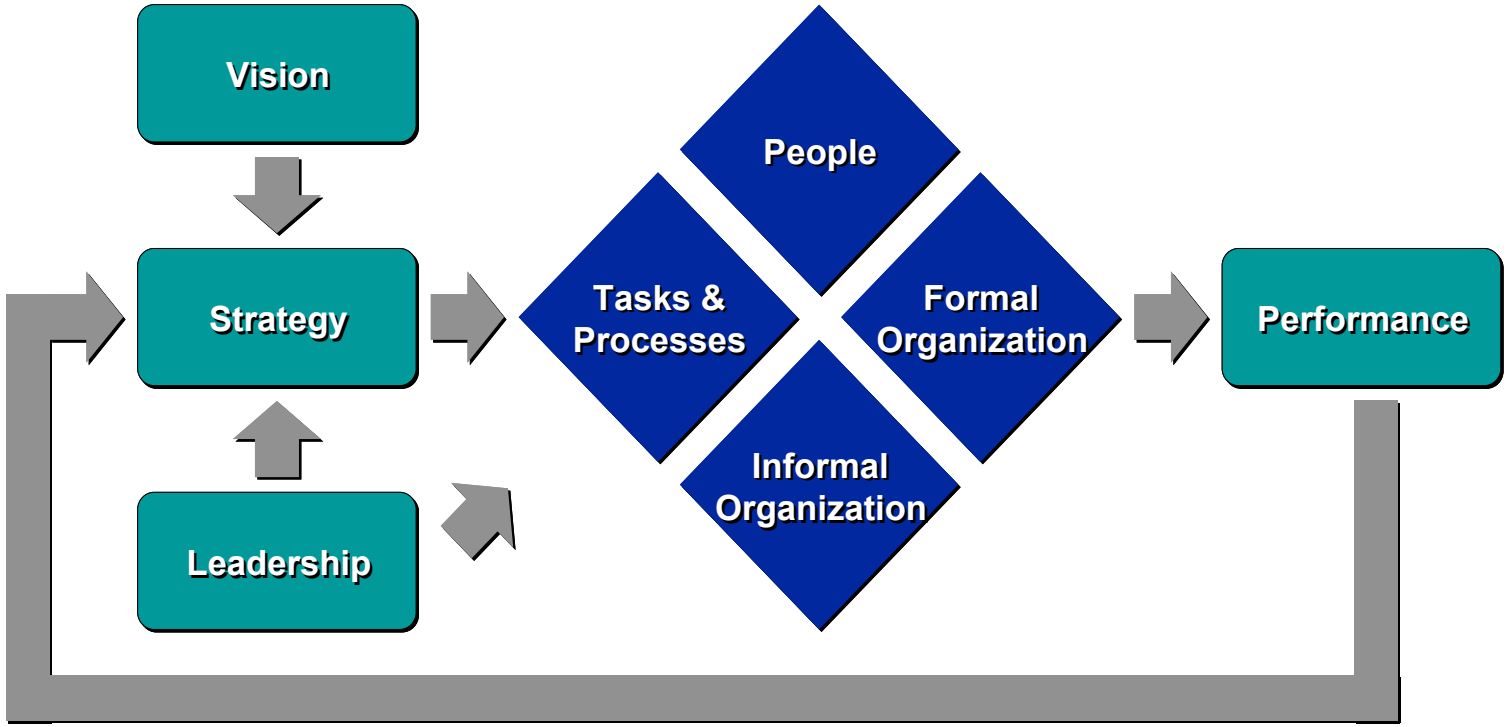
Understanding Capabilities
An Organizational Architecture Model



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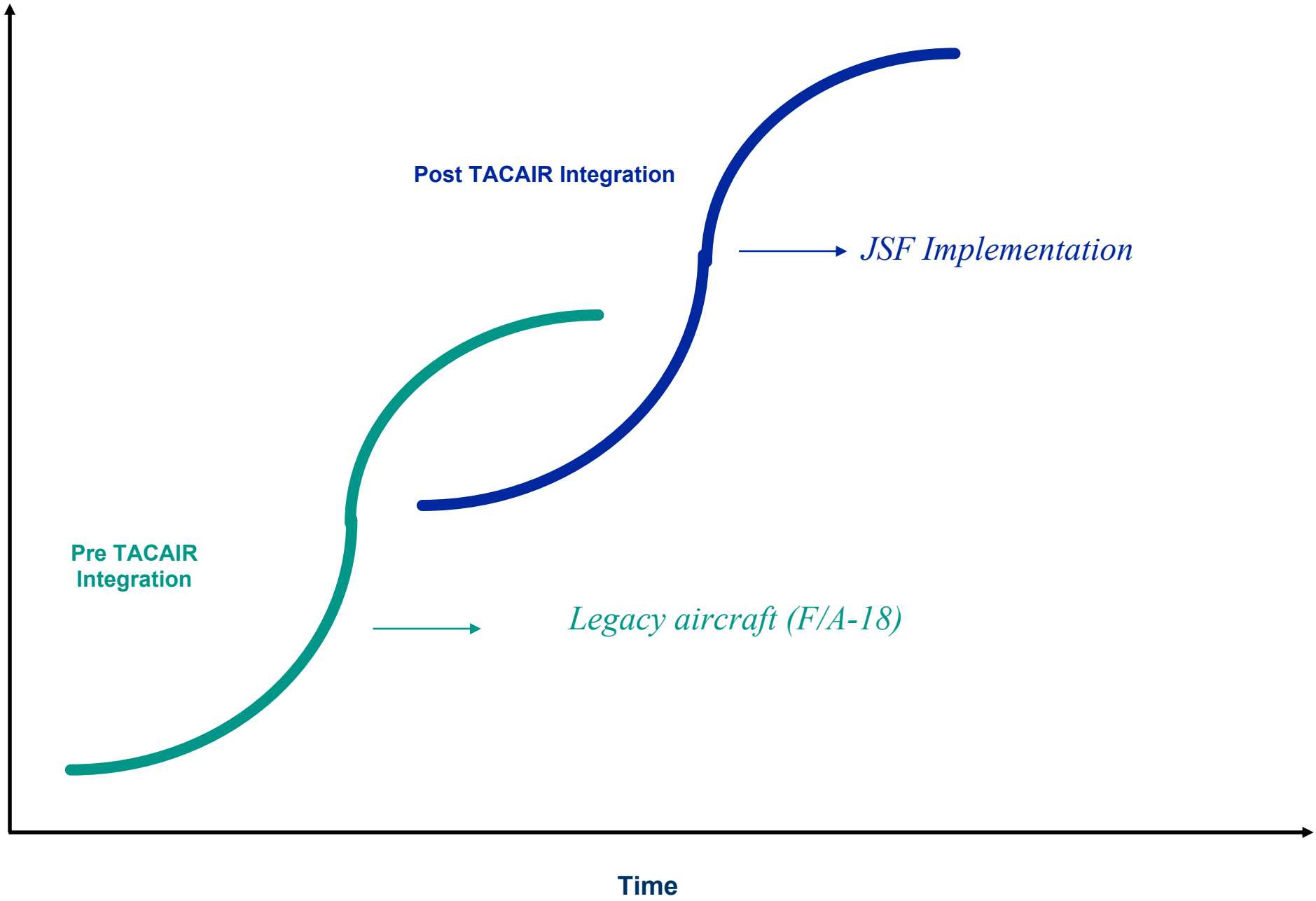
Plan for TACAIR integration with Implementation of the JSF
Post TACAIR Integration
JSF Implementation
Pre TACAIR Integration
Legacy aircraft (F/A-18)
Time

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